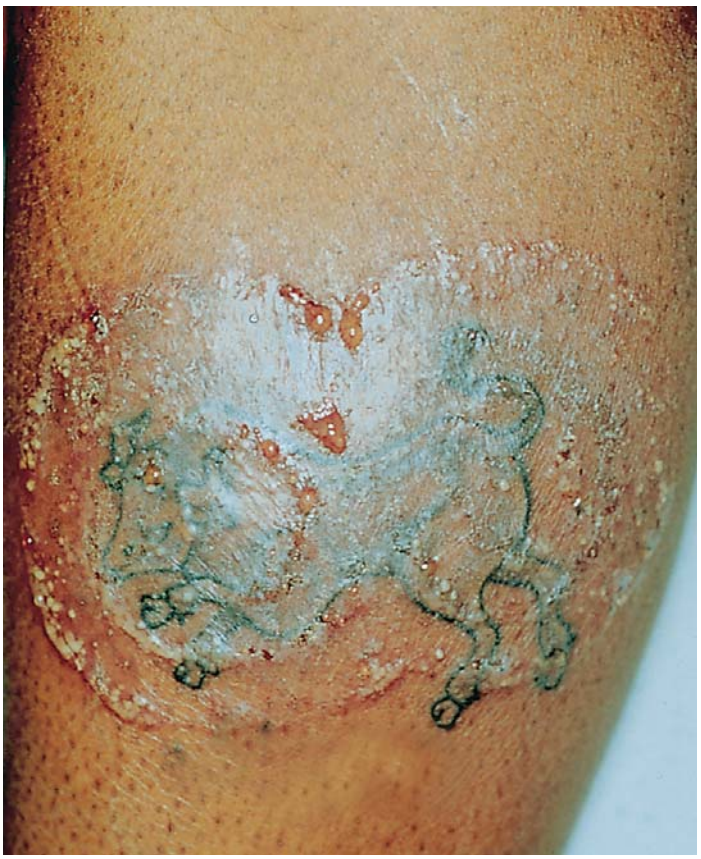
What Is Your Diagnosis?



A woman presented with a pruritic eruption on her leg of one week's duration. Two weeks before the onset of her symptoms, she had undergone home tattoo placement on her arm and leg. The tattoo on her arm was asymptomatic and had healed without complication. Family history was significant for a 5-year-old son with a scaling scalp.

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The Diagnosis: Tinea in Tattoo

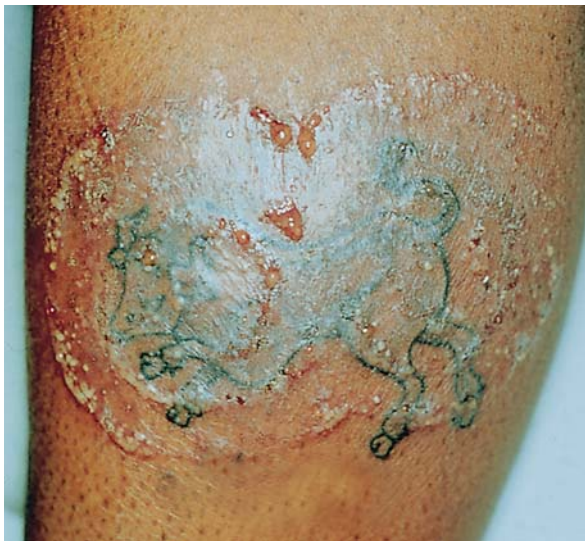

Figure 1. Peripherally expanding, concentric lesions with active vesiculopustular borders that extended from a single-color tattoo onto the surrounding skin.

Figure 2. Colonies of *Trichophyton tonsurans* cultured from the patient's leg.

Scrapings from an unroofed vesicle of the eruption (Figure 1) were dissolved in 10% potassium hydroxide. Results of a direct microscopic examination revealed numerous hyphae. A fungal culture grew *Trichophyton tonsurans* (Figure 2). Gram stain and bacterial culture results were negative. A fungal culture from the scalp of the patient's 5-year-old son also was positive for *T tonsurans*.

The infectious complications of tattoos have been well reviewed and include syphilis, leprosy, sporotrichosis, tuberculosis cutis, viral hepatitis, rubella, verruca vulgaris, molluscum contagiosum, rubella, herpes simplex, and vaccinia.[1-5] Extensive review of the scientific literature, however, reveals few reports of dermatophyte infection as a direct complication of tattoo placement.[6] In the case presented, the patient admitted to scratching her tattoo site frequently during the initial days after placement. Inoculation most likely occurred after grooming her child's hair, which harbored an unsuspected dermatophyte infection.

At first glance, this exuberant eruption may resemble an allergic hypersensitivity reaction to tattoo pigment. This acquired sensitivity has been well described.[7-9] Closer inspection, however, reveals that the entire tattoo was made from one color, and that only a portion of the tattoo was involved. Dermatophyte infection, though uncommon, should be included in the differential diagnosis of inflammatory reactions within tattoos. Appropriate microscopic examination or culture of tissue scrapings will readily make the diagnosis.

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